

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 41

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KAZUAKI ABE,
HIROMICHI SEIKE and MITSUHIRO IWATA

Appeal No. 1997-4226
Application 08/501,152¹

ON BRIEF²

Before WARREN, KRATZ and JEFFREY T. SMITH, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

Decision on Appeal and Opinion

We have carefully considered the record in this appeal under 35 U.S.C. § 134, including the opposing views of the examiner, in the answer, and appellants, in the brief, and based on our review, find that we cannot sustain the rejection of appealed claims 1 through 10,³ all of the claims in the

¹ We have concurrently decided Appeal No. 98-1152 in application 08/489,827.

² As counsel was informed on September 12, 2001, it is ORDERED that the Oral Hearing scheduled for 1:00 PM on September 12, 2001, is *VACATED*.

³ See, e.g., the amendments of March 28, 1996 (Paper No. 20) and November 12, 1996 (Paper No. 24).

application, under 35 U.S.C. § 103(a) as being unpatentable over Schnur et al. (Schnur).⁴ For the reasons pointed out by appellants in the brief and reply brief, the examiner has failed to make out a *prima facie* case of obviousness, to which we add the following for emphasis.

It is well settled that the examiner has the burden of establishing a *prima facie* case of obviousness by showing that some objective teaching, suggestion or motivation in the applied prior art taken as a whole and/or knowledge generally available to one of ordinary skill in the art would have led that person to the claimed invention as a whole, including each and every limitation of the claims, without recourse to the teachings in appellants' disclosure. *See generally, Pro-Mold and Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629-30 (Fed. Cir. 1996); *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

The appealed claims, as represented by appealed claim 1, are drawn to a flame retardant hydraulic oil containing a hydraulic base oil comprising a polyol partial ester, wherein the polyol partial ester has certain limitations. Among these limitations is the carbon and hydroxyl moiety content of the polyol and the carbon content of the acyclic monocarboxylic acid(s) reacted to form the partial ester, and the hydroxyl value, flash point and number average molecular weight of the partial ester product. Thus, at the very least, the partial ester is prepared from a polyol having at least three hydroxy groups and a carboxylic acid falling within the carbon ranges has a hydroxy value of at least 35 mg KOH/g, a flash point of at least 290°C (554°F), and a number average molecular weight of at least 600. The examiner relies on the teaching in Schnur that "in addition to simple ester and diester products," there may be used as an additive in synthetic hydrocarbon base oil containing hydraulic fluid, "polyol esters" prepared from "such as neopentyl glycol or trimethylolpropane" and an "aliphatic monocarboxylic acid having about 5 to 10 carbon atoms" (col. 4, lines 36-43). We note that neopentyl glycol has two hydroxyl groups and five carbon atoms while trimethylolpropane has three hydroxy groups. The examiner takes the position that while Schnur "does not exactly exemplify the instantly claimed

⁴ Answer, pages 3-4 and 5-6. The examiner withdrew the ground of rejection based on the judicially created doctrine of obviousness-type double patenting (answer, page 2).

composition,” one of ordinary skill in the art following the teachings in the reference would have arrived “at a hydraulic fluid having a flash point above 320°F,” that is, 160°C (answer, pages 3-4).

In their brief, appellants submit that the polyol *partial* esters specified in the appealed claims are not within the disclosure of Schnur. Appellants point out that the diols and polyols of Schnur are completely esterified according to the reference while the claimed esters are partially esterified as seen from the hydroxy value, the highest molecular weight of the esters obtained under the teachings of the reference is below that of the partial esters specified in the claims (brief, pages 8-12). Appellants further point out that the claims recite a limitation on flame retardancy for the claimed hydraulic oil that is not suggested by the reference (brief, pages 14-15; reply brief, pages 2-3). We observe that this limitation is specifically “expressed in terms of the length of continuous burning time of not more than 30 seconds” in claims 1 and 8. The examiner responds that “[a]ppellants have not submitted any evidence . . . which shows that the esters of Schnur would not possess the characteristics of the claimed esters” and that “the limitations on which Appellant [sic] relies (i.e., the continuous burning time of the hydraulic fluid) are not stated in the claims” (answer, page 5).

It seems to us that the examiner’s position is essentially that the claimed partial esters are structurally related to the full esters of Schnur because she has not factually support her apparent position that there are no differences in properties between these two sets of esters even in view of appellants’ analysis showing actual differences in structure and properties *based on claim limitations*. However, the mere allegation of structural similarity without supporting evidence that one of ordinary skill in the art would have made the necessary modification to the esters of Schnur in order to arrive at the claimed partial esters is not sufficient to establish a *prima facie* case of obviousness. *See In re Jones*, 958 F.2d 347, 349-51, 21 USPQ2d 1941, 1943-44 (Fed. Cir. 1992) (“Conspicuously missing from this record is any *evidence*, other than the PTO’s speculation (if it be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modifications of the prior art salts necessary to arrive at the claimed . . . salt.”); *In re Grabiak*, 769 F.2d 729, 731-32, 226 USPQ 870, 872 (Fed. Cir. 1985) (“[W]e have concluded that generalization should be avoided insofar as specific chemical structures are alleged to be *prima facie* obvious one from the other. . . . [I]n the case

before us there must be adequate support in the prior art for the ester/thioester change in structure, in order to complete the PTO's *prima facie* case and shift the burden of going forward to the applicant.'').

To the extent that a *prima facie* case of obviousness had been made out by the examiner over Schnur, the factual arguments presented by appellants in rebuttal shifted the burden back to the examiner to again establish the factual underpinning of a *prima facie* case under § 103(a) in order to maintain each of the grounds of rejection. *See, e.g., Oetiker, supra.* This the examiner has not done.

The examiner's decision is reversed.

Reversed

CHARLES F. WARREN)	
Administrative Patent Judge)	
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PETER F. KRATZ)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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